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## **CLAIMS**

We Claim:

- 1. A method for detecting the presence of a cancer cell in a patient, said method comprising the steps of:
  - (a) obtaining a biological sample from said patient;
- (b) contacting the biological sample with two or more oligonucleotide pairs specific for independent polynucleotide sequences which are unrelated to one another, wherein the oligonucleotide pairs hybridize, under moderately stringent conditions, to their respective polynucleotides and the complements thereof;
  - (c) amplifying said polynucleotides; and
  - (d) detecting said amplified polynucleotides;

wherein the presence of one or more of said amplified polynucleotides indicates the presence of lung cancer cells in said patient.

- 2. A method for determining the presence of lung cancer cells in a patient, said method comprising the steps of:
  - (a) obtaining a biological sample from said patient;
- (b) contacting a biological sample obtained from the patient with two or more oligonucleotides that hybridize to two or more polynucleotides that encode two or more lung tumor proteins;
- (c) detecting in said biological sample an amount of a polynucleotide that hybridizes to at least one of said oligonucleotides; and
- (d) comparing the amount of the polynucleotides that hybridizes to said oligonucleotides to a predetermined cut-off value, and therefrom determining the presence or absence of lung cancer cells in the patient.
- 3. A method for monitoring the progression of lung cancer in a patient, said method comprising the steps of:

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- (a) obtaining a first biological sample from said patient;
- (b) contacting said first biological sample with one or more oligonucleotides that hybridize to one or more polynucleotides that encode lung tumor proteins;
- (c) detecting in said first biological sample an amount of at least one of said polynucleotides that hybridize to said oligonucleotides;
- (d) repeating steps (b) and (c) using a second biological sample obtained from said patient at a subsequent point in time; and
- (e) comparing the amount of polynucleotides detected in step (d) with the amount detected in step (c) and therefrom monitoring the progression of lung cancer in said patient.
- 4. A method according to any of claims 1-3, wherein the polynucleotides are selected from the group consisting of SEQ ID Nos: 1, 3, 5, 7, 21 and 26.